Draft Engineering Evaluation/Cost Analysis (EE/CA), dated December 2010 Gulfco Marine Maintenance Superfund Site Prepared by EA Engineering, Science, and Technology, Inc. for EPA

## Comments

- 1. (Page 1, Section 1): The EE/CA discuses the former surface impoundments, North Area surface soils, North Area surface water, and Intracoastal Waterway sediments. According to the Task Order requirements, the EE/CA should only address the former surface impoundments and the North Area surface soils. Discussions regarding the other areas should be removed from this section and in subsequent sections of the EE/CA.
- 2. (Page 3, Section 1): The EE/CA states that no further action is necessary based on the ecological assessment, but that it may be beneficial from a risk management standpoint to remove some or all of the sediments from the potentially impacted areas. The EE/CA does not explain when it may be beneficial to remove these sediments, and other statements lead to the opposite conclusion. For example, the EE/CA finds that the Site wetlands are not visually distinguishable from surrounding wetlands in terms of species composition and density, presence of invertebrates, and wildlife usage. Further, the EE/CA states that any disturbance of the wetlands, such as excavation of sediments or other remedial activities would require decades for the sediments to return to the marsh type environment present today, which provide valuable functions such as wildlife habitat, food, water quality enhancement, and ground water recharge. The top paragraph on Page 3 should be deleted.
- 3. (Page 3, Section 1): The EE/CA states that four feet of clay are required as a minimum cover for the former impoundments. The former impoundments were covered by three feet of clay in accordance with a closure plan approved by TCEQ. If information were available that this closure was no longer protective of human health and the environment, then it may be appropriate to reconsider the closure. However, the ground water plume has not significantly migrated toward any potential receptors, and there is no direct exposure to the underlying contaminants. Therefore, the cap is protective of human health and the environment, and amending the approved closure plan to upgrade the cap to a four foot thickness is unnecessary. The references to a four foot chick cap should be removed from the EE/CA.
- 4. (Page 3, Section 1): The alternatives summary includes several alternatives with a gravel drive installed on top of the former impoundments. Access to the top of the former impoundments is not required except for mowing, and the presence of a drive may encourage driving on the cap, which in the long term may result in rutting. The gravel drive should be removed from the alternatives list.

- 5. (Page 3, Section 1): A fence around the former impoundments is not included in the alternatives summary. A fence around the former impoundments is necessary to prevent access and protect the integrity of the cap. A fence around the former impoundments, including appropriate signs, should be added to the alternatives.
- 6. (Page 5, Section 2): The EE/CA describes the data presented in Appendix A as a "BERA" (Baseline Ecological Risk Assessment). A BERA is not required for this EE/CA. Instead, a streamlined risk evaluation is required, and all references to a BERA should be changed to a streamlined risk evaluation.
- 7. (Page 5, Section 2.1): The EE/CA states that response actions for ground water will be addressed separately. Ground water at the site is salt water and is not used as a drinking water source. Further, there is no indication that contaminated ground water is migrating towards any potential receptors. The statement regarding response actions in ground water is inaccurate and should be deleted.
- 8. (Page 8, Section 3.1.1): The EE/CA states that a total of six surface soil samples were collected (0-6 inches bgs) in addition to the reference samples. However, there were in fact 14 locations in the North Area soil that were sampled from 0-6 inches bgs. Further, there were additional shallow soil samples in the scrap metal area and the debris pile area. Finally, there were 17 sediment samples collected from 0-6 inches in the wetland sediment areas. The EE/CA should be revised to accurately describe the soil and sediment samples in the North Area.
- 9. (Page 13, Section 4.2, first paragraph, last sentence): The word "PRP" should be inserted between the words "additional" and "data".
- 10. (Page 14, Section 6.1): The EE/CA states that existing site conditions indicate the need for some form of removal as discussed in Section 4 above. However, Section 4 discusses why sediment removal is not warranted. Also, later in Section 6.1, the EE/CA states that "while removal action may not be warranted to address ecological exposure pathways ..." Further, in Section 1, the EE/CA states that no further action is necessary based on the ecological assessment. Additional information that the site wetlands are not distinguishable from surrounding wetlands, and that any disturbance of the wetlands would require decades for the sediments to return to the marsh type environment present today indicate that a wetland removal is not appropriate. The EE/CA should be revised to clarify that no further action is necessary regarding a wetland removal.
- 11. (Page 14, Section 6.1): The EE/CA states that a BERA is currently undergoing EPA review. This sentence should be revised because a BERA is not currently undergoing EPA review, but will in the future after it is submitted to EPA.
- 12. (Page 15, Section 6.2): The EE/CA included ARARs regarding drinking water standards. The ground water at the Site is salt water and therefore the drinking

water standards are not ARARs. The ARARs regarding the drinking water standards should be removed.

13. (Appendix A, Page 13, Section 3.2.3): This section discusses results of the L. plumulosus toxicity tests. The first paragraph states that there is no statistical difference between the seven site samples and the two reference samples for either the survival or growth endpoints. **Yet, the subsequent two paragraphs do not support this finding.** 

The second paragraph inappropriately uses pooled soil reference Leptocheirus survival toxicity test samples to compare to the site wetland sediment Leptocheirus survival toxicity test samples; these inappropriate comparisons should be eliminated. Only the wetland sediment reference Leptocheirus survival toxicity test samples should be used for comparison to the site wetland sediment Leptocheirus survival toxicity test samples. Additionally, the values reported in this paragraph (reduced survival of 62%, 55%, 75%, and 43 %) were not found to correspond with those reported on Table 7; they should be eliminated.

Analogously, in the third paragraph, inappropriate comparisons using soil data instead of the available sediment data were reported for the results of the Leptocheirus growth toxicity tests in wetland sediment comparing pooled reference vs. site samples; these comparisons also should be eliminated.

These comments should be analogously addressed in Section 4.3.2, the summary, and the conclusions of Appendix A, as well as in the Executive Summary of the main part of the EE/CA.